

CLAIMS

What is claimed is:

1. A data processing method comprising:
 - generating, with a client device, a user interface (UI) for a server-based application according to a UI format that is based upon a number of device capabilities for said client device;
 - receiving, at said client device, a number of source data items related to said server-based application; and
 - populating at least one native UI control used by said UI with said number of source data items.
2. A method according to claim 1, wherein said at least one native UI control is associated with an operating system for said client device.
3. A method according to claim 1, further comprising the steps of:
 - generating an action request in response to a manipulation of said UI by a user of said client device; and
 - updating said UI in response to said action request.
4. A method according to claim 1, further comprising the steps of:
 - performing an offline action by said client device while said client device operates in a disconnected mode;
 - subsequently establishing a session between said client device and a UI server; and
 - thereafter transmitting, from said client device to said UI server, a command indicative of said offline action.
5. A method according to claim 1, further comprising the step of saving said number of source data items in a client cache resident at said client device.

6. A method according to claim 5, further comprising the step of removing client cache items to accommodate said number of source data items.

7. A method according to claim 6, wherein said removing step selectively removes said client cache items according to a hierarchical preference scheme.

8. A method according to claim 1, further comprising the steps of:
receiving, at said client device, a client action command related to said server-based application; and
executing said client action command by said client device.

9. A method according to claim 1, wherein said number of source data items received during said receiving step represent a portion of a larger amount of related data available at a UI server.

10. A method according to claim 9, wherein:
said larger amount of related data comprises a list of items; and
said number of source data items represents a subset of said list of items.

11. A method according to claim 9, wherein:
said larger amount of related data comprises a document; and
said number of source data items represents a portion of said document.

12. A method according to claim 9, wherein:
said larger amount of related data comprises an image; and
said number of source data items represents a portion of said image.

13. A method according to claim 9, wherein:
said larger amount of related data comprises a body of text; and
said number of source data items represents a portion of said body of text.

14. A method according to claim 1, further comprising the step of retrieving a command script corresponding to a manipulation of a UI control contained in said UI, said command script being configured for execution by said client device.

15. A method according to claim 14, further comprising the step of executing, by said client device, said command script in response to the manipulation of said UI control at said client device.

16. A method according to claim 15, wherein said executing step is performed by said client device in response to an offline manipulation of said UI control at said client device.

17. A data processing method comprising:

storing a user interface (UI) form definition locally at a client device, said UI form definition being dictated by a number of device capabilities for said client device;

said client device saving a number of source data items locally, said number of source data items being related to a server-based application;

said client device rendering a UI that is based upon said UI form definition; and

said client device populating said UI with said number of source data items.

18. A method according to claim 17, further comprising the step of receiving, at said client device, said number of source data items from a UI server.

19. A method according to claim 17, further comprising the steps of:
generating an action request in response to a manipulation of said UI by a user of said client device; and
updating said UI in response to said action request.

20. A method according to claim 17, further comprising the steps of:
performing an offline action by said client device while said client device
operates in a disconnected mode;
subsequently establishing a session between said client device and a UI
server; and
thereafter transmitting, from said client device to said UI server, a command
indicative of said offline action.
21. A method according to claim 17, wherein said saving step saves said
number of source data items in a client cache resident at said client device.
22. A method according to claim 21, further comprising the step of
removing client cache items to accommodate said number of source data items.
23. A method according to claim 22, wherein said removing step
selectively removes said client cache items according to a hierarchical preference
scheme.
24. A method according to claim 21, further comprising the steps of:
updating said UI in response to a manipulation of a display control rendered
by said client device;
requesting an additional number of source data items if said manipulation of
said display control triggers a data request command; and
replacing source data items saved in said client cache with said additional
number of source data items.
25. A method according to claim 21, further comprising the steps of:
updating said UI in response to a manipulation of a display control rendered
by said client device;
retrieving additional source data items from said client cache in response to
said manipulation of said display control; and

displaying said additional source data items in said UI.

26. A method according to claim 17, further comprising the steps of:
receiving, at said client device, a client action command related to said server-based application; and
executing said client action command by said client device.

27. A method according to claim 17, wherein said UI form definition is dictated by said server-based application.

28. A method according to claim 17, wherein said UI form definition identifies at least one native UI control stored locally at said client device.

29. A method according to claim 17, wherein said number of source data items saved during said saving step represents a portion of a total number of source data items available via a UI server.

30. A method according to claim 29, further comprising the steps of:
said client device generating a request for additional source data items; and
said client device receiving, from said UI server, a subsequent portion of said total number of source data items.

31. A method according to claim 30, wherein said client device generates said request in response to a manipulation of said UI control.

32. A data processing method comprising:
obtaining a user interface (UI) form definition for a server-based application, where said UI form definition is based upon a number of device capabilities for a client device;
said client device receiving an instruction to render a UI form corresponding to said UI form definition;

said client device rendering said UI form with at least one native UI control associated with an operating system for said client device;

said client device obtaining a number of data items related to said server-based application; and

said client device displaying said number of data items in said at least one native UI control.

33. A method according to claim 32, further comprising the step of saving said number of data items in a client cache resident at said client device.

34. A method according to claim 33, further comprising the step of retrieving said number of data items from said client cache prior to said displaying step.

35. A method according to claim 32, further comprising the step of requesting said number of data items in response to a manipulation of said at least one native UI control.

36. A client device architecture for use with a client device capable of communicating with a data processing server, said client device architecture comprising:

a receive module configured to receive an instruction that identifies a user interface (UI) form definition;

an operating system;

a number of native UI controls provided by said operating system;

a UI form data cache configured to store said UI form definition; and

a UI module configured to generate a UI for a server-based application according to said UI form definition, and to populate at least one of said native UI controls with a number of source data items associated with said server-based application.

37. A client device architecture according to claim 36, further comprising a client cache configured to store said number of source data items.

38. A client device architecture according to claim 37, further comprising a cache management module configured to remove items stored in said client cache to accommodate said number of source data items.

39. A client device architecture according to claim 38, wherein said cache management module is further configured to selectively remove said items according to a hierarchical preference scheme.

40. A client device architecture according to claim 37, further comprising a cache management module associated with said client cache, wherein:

 said UI module is further configured to update said UI in response to manipulation of a display control rendered in connection with said UI;

 said cache management module is configured to request an additional number of source data items from a remote UI server if said manipulation of said display control triggers a data request command; and

 said cache management module is further configured to replace source data items saved in said client cache with said additional number of source data items.

41. A client device architecture according to claim 37, further comprising a cache management module associated with said client cache, wherein:

 said UI module is further configured to update said UI in response to manipulation of a display control rendered in connection with said UI;

 said cache management module is configured to retrieve an additional number of source data items from said client cache in response to said manipulation of said display control; and

 said UI module is further configured to display said additional source data items in said UI.

42. A client device architecture according to claim 36, wherein said receive module is further configured to receive said number of source data items from a remote UI server.

43. A client device architecture according to claim 36, wherein said receive module is further configured to receive said UI form definition from a remote UI server.

44. A client device architecture according to claim 36, wherein said UI form definition is based upon a number of device capabilities for said client device.

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